CLAIMS

What is CLAIMED is:

1. A vending machine service system for transmitting vending data to a vending machine to a service operator, comprising:

monitoring means for monitoring said vending machine, said monitoring means for compiling data on the operation of said machine, providing compiled data comprising machine identification and sales data on the vending machine, said monitoring means further for formatting said compiled data into a data stream;

a transmitter for transmitting said data stream to a reception area, providing a transmission;

a service vehicle situated in said reception area, said service vehicle for conveying an inventory of product for the vending machine, said service vehicle further comprising:

receiver means for receiving said transmission, said receiver further comprising interface means for converting said transmission back to said data stream; and

a portable computer for receiving said data stream, said portable computer further comprising display means for displaying the identification of the vending machine and sales data for the vending machine, so as to enable said service operator to obtain inventory from said service van and convey same to the vending machine, so as to stock said vending machine without a physical inventory of the vending machine.

2. The vending machine service system of Claim 1, wherein said compiled data of monitoring means includes data on cash receipts and change requirements for the vending

machine, and wherein said display means of said portable computer display displays said data on cash receipts and change requirements.

3. The vending machine service system of Claim 2, wherein said compiled data of said monitoring means includes service information on the operational status of the vending machine, and wherein said display means of said portable computer display displays said data on service information for the vending machine.

4. The vending machine service system of Claim 3, wherein there is provided second monitoring means for monitoring a second vending machine located a distance from said first vending machine, said second monitoring means for compiling data on the operation of the second vending machine, providing compiled data comprising machine identification and sales data on the second vending machine, said second monitoring means further for formatting said compiled data into a second data stream;

a second transmitter for transmitting said data stream to said reception area, providing a second transmission;

wherein said receiver means further receives said second transmission, said interface means further converts said second transmission to a second data stream; and

said portable computer is provided for receiving said second data stream, said portable computer further comprising display means for displaying the identification of the second vending machine and sales data for the second vending machine, so as to enable said service operator to obtain inventory from said service van and convey same to the second vending machine, so as to stock said second vending machine without a physical inventory of the second vending machine.

5. The vending machine service system of Claim 4, wherein there is provided a third

monitoring means for monitoring a third vending machine located a distance from said first and second vending machines, said third monitoring means for compiling data on the operation of the third vending machine, providing compiled data comprising machine identification and sales data on the third vending machine, said third monitoring means further for formatting said compiled data into a third data stream;

a third transmitter for transmitting said data stream to said reception area, providing a third transmission;

wherein said receiver means further receives said third transmission, said interface means further converts said third transmission to a third data stream; and

said portable computer is further provided for receiving said third data stream, said portable computer further comprising display means for displaying the identification of the third vending machine and sales data for the third vending machine, so as to enable said service operator to obtain inventory from said service van and convey same to the third vending machine, so as to stock said second vending machine without a physical inventory of the second vending machine.

6. A vending machine service system for transmitting vending data to a vending machine to a service operator, comprising:

monitoring means for monitoring a plurality of vending machines situated at disparate locations relative one another within a local area, said monitoring means comprising individual monitor modules for compiling data on the operation of said plurality of machines, providing compiled data comprising machine identification and sales data on each of said vending machines, said monitoring means further formatting said compiled data into a data stream;

a transmitter for transmitting said data stream to a reception area, providing a transmission;

a service vehicle situated in said reception area, said service vehicle for conveying an inventory of product for each of said vending machines, said service vehicle further comprising:

receiver means for receiving said transmission, said receiver further comprising interface means for converting said transmission back to said data stream; and

a portable computer for receiving said data stream, said portable computer further comprising display means for displaying the identification of each of said vending machine and sales data for each of said vending machines, so as to enable said service operator to obtain inventory from said service van and convey same to each of said vending machines, so as to stock said vending machine without a physical inventory of each of said vending machines.

7. The vending machine service system of Claim 6, wherein said compiled data of monitoring means includes data on cash receipts and change requirements for each of said vending machines, and wherein said display means of said portable computer display displays said data on cash receipts and change requirements.

8. The vending machine service system of Claim 7, wherein said compiled data of said monitoring means includes service information on the operational status of each of said vending machines, and wherein said display means of said portable computer display displays said data on service information for each of said vending machines.

9. The vending machine service system of Claim 8, wherein said portable computer further comprises download means to download said data stream to an administrative office.

10. The vending machine service system of Claim 9, wherein said monitoring means appends to said data stream location information on the location of each of said vending machines, and wherein said display means of said portable computer display displays said location information for each of said vending machines.

11. The vending machine service system of Claim 10, wherein there is further provided route indication means associated with said portable computer to utilize said location information to display a preferred route for the service of each of said vending machines.

12. The method of servicing a plurality of vending machines situated at disparate locations relative to one another within a location area, comprising the steps of:

a) polling each said machine, compiling identification, and updated sales and cash flow data for each machine, providing an updated data stream;

b) transmitting said updated data stream from separate transmitter located near each said machine, providing updated transmissions within a reception area;

c) repeating steps a-b, while

d) providing a service vehicle having product inventory for said vending machines;

e) positioning said service vehicle within said reception area;

f) receiving said updated transmissions from each of said separate transmitters, providing a received data stream;

g) pulling inventory from said service vehicle based upon said sales and cash flow data for each vending machine conveyed in said received data stream, providing pulled inventory;

h) stocking each said vending machine as needed utilizing said pulled inventory.

13. The method of Claim 12, wherein after step "h" there is provided the further step "I." of resetting each machine, so as to reflect the inventory stocked in each machine in step "h".

14. The method of servicing a plurality of vending machines situated at disparate locations relative to one another within a location area, comprising the steps of:

a) polling each said machine, compiling identification, and updated sales and cash flow data for each machine, providing an updated data stream;

b) transmitting said updated data stream from each separate transmitter located near each said machine, providing a plurality of updated transmissions within a reception area;

c) repeating steps a-b, while

d) providing a service vehicle having product inventory for said vending machines;

e) positioning said service vehicle within said reception area;

f) receiving said plurality of updated transmissions from each of said separate transmitters, providing a received data stream;

g) providing sales and cash flow data for each vending machine conveyed in said received data stream, providing a picking ticket;

h) pulling inventory from said service vehicle based upon said picking ticket, providing pulled inventory;

l) stocking each said vending machine as needed utilizing said pulled inventory.

15. The method of Claim 14, wherein after step "h" there is provided the further step "l." of resetting each machine, so as to reflect the inventory stocked in each said vending machine in step "h".

16. The method of Claim 15, wherein after step "g." there is provided the additional step of providing a database of location information on each said vending machine, and discerning an optimal route order for the servicing of each said vending machine, and providing sales and cash flow data for each said vending machine in said optimal route order.

17. The method of servicing a vending machine, comprising the steps of:

a) polling said machine, compiling sales and cash flow data, providing a data stream;

b) transmitting said data stream from a transmitter, providing a plurality of transmissions within a reception area;

c) repeating steps a-b, while

d) providing a service vehicle having product inventory for said vending machine;

e) positioning said service vehicle within said reception area;

f) receiving said transmission from said transmitter, providing a received data stream;

g) providing sales and cash flow data for the vending machine, providing a picking ticket;

h) pulling inventory from said service vehicle based upon said picking ticket, providing pulled inventory;

l) stocking said vending machine utilizing said pulled inventory.

18. The method of Claim 16, wherein after step "h" there is provided the further step "l." of resetting each machine, so as to reflect the inventory stocked in each machine in step "h".

19. The method of servicing a vending machine, comprising the steps of:

a) receiving Data from a the vending machine via a monitoring assembly

b) removing data unrelated to inventory, cash, operational status, or machine ID utilizing programming in said monitoring assembly;

c) preparing a transmission string including an identification of the machine, inventory, cash data, and/or operational status of said machine, and forwarding said transmission string to a transmitter module;

d) transmitting said transmission string to broadcast within limited transmission range within a limited, local area, and repeating said transmission to maintain a flow of data to a reception area; while

e) updating said transmission string as new data is received;

f) repeating steps a-e for other vending machines in the vicinity, so as to provide multiple transmissions to the reception area;

g) positioning a service vehicle within the reception area of said transmissions;

h) receiving said transmissions;

I) inputting said transmissions into a portable computer;

j) conveying said transmissions via said portable computer to a route operator operating the service vehicle;

k) allowing said route operator to pull inventory and money change from said vehicle for servicing each of said vending machines so as to provide stock for filling said vending machine inventories.

20. The method of Claim 19, wherein there is further provided the additional step "I" of said portable computer indicating to the route operator which machine is to be serviced next based upon a calculation as to the best route to follow in servicing said vending machines, providing the next machine.

21, The method of Claim 20, wherein there is further provided the additional step "m" of allowing the service personnel to convey said machine inventory to said next machine;

n) stocking said next machine, replenishing change, and resetting the machine;

I) repeating the steps of claims 20-21 until each of said vending machines is stocked;

m) returning to the service vehicle with the portable computer;

n) uploading data from the portable computer to a base office.

22. The method of servicing a vending machine, comprising the steps of:

a) receiving DEX/USC data from a vending machine, providing received data;

b) compiling said data to discern activity on inventory, cash, and/or operational status, providing filtered received data;

c) preparing a transmission conveying said filtered received data, providing a transmission string;

d) transmitting said transmission string to a reception area in the vicinity of said vending machine;

e) repeating steps a-d, while

f) positioning a service vehicle within said reception area;

g) receiving said transmission;

h) utilizing data from said transmission to pull inventory and money change from said service vehicle for servicing said vending machine, providing pulled inventory;

l) conveying said pulled inventory to said vending machine;

j) stocking said vending machine

k) resetting said vending machine, resetting said filtered received data.